

Amendments to the Claims

Claim 1 (Currently amended): A method of transmitting data using pulse modulation, the method comprising:

receiving bits of data from a memory unit;

transforming a plurality of the bits of data into ~~a single transmission~~ an ultra wideband pulse, the ~~single transmission~~ ultra wideband pulse having a pulse ~~characteristic~~ duration selected from a set of ~~at least ten~~ predetermined pulse ~~characteristics~~ durations, one of which is corresponding to the plurality of bits of data; and

transmitting the ~~single transmission~~ ultra wideband pulse over a guided medium to a receiver ~~using pulse modulation and~~ without using a carrier signal to transmit the ~~single transmission~~ ultra wideband pulse;

wherein ~~the set of at least ten pulse characteristics correspond to pulse durations and wherein the pulse durations include ten separate pulse durations, each of the separate pulse durations within the set of ten predetermined pulse durations correspond~~ corresponding to one of integers 0 through 9.

Claim 2 (Cancelled).

Claim 3 (Original): The method of claim 1 wherein the data is in the form of universal character encoding.

Claim 4 (Currently amended): The method of claim 1 further comprising:

receiving the ~~single transmission~~ ultra wideband pulse from the guided medium at the receiver; and

transforming the ~~single transmission~~ ultra wideband pulse into the plurality of bits of data corresponding to the ~~characteristics~~ durations of the ~~single transmission~~ ultra wideband pulse.

Claims 5-20 (Cancelled).

Claim 21 (Currently amended): A method of transmitting data ~~using pulse modulation~~, comprising:
receiving at least two digital bits of data from a memory unit;
transforming the at least two digital bits of data into ~~[[a]] single transmission~~ an ultra wideband pulse, the ~~single transmission~~ ultra wideband pulse having a pulse duration selected from a set of at least ten different predetermined pulse durations, one of which corresponds to the bits of data;
transmitting the ~~single transmission~~ ultra wideband pulse ~~without using a carrier signal to transmit the transmission pulse.~~

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claims 23-37 (Cancelled).

Claim 38 (Currently amended): A method of transmitting data with ~~electronic~~ ultra wideband pulses, the method comprising:
receiving bits of data from a memory unit;
transforming a plurality of the bits of data into a single ~~transmission~~ ultra wideband pulse ~~of electrical energy~~, the single ~~transmission~~ ultra wideband pulse having a pulse ~~characteristic duration~~ selected from a set of ten or more predetermined pulse ~~characteristics durations~~, one of which is corresponding to the bits of data; and
transmitting the ~~transmission~~ ultra wideband pulse over a transmission medium without using a carrier signal to transmit the ~~transmission~~ ultra wideband pulse.

Claims 39-44 (Cancelled).

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

Claim 46 (Currently amended): The method of claim 38 further comprising:
receiving the single ~~transmission~~-ultra wideband pulse from the transmission medium; and
transforming the single ~~transmission~~-ultra wideband pulse into a plurality of bits of data
corresponding to the specific characteristics of the ~~transmission~~-ultra wideband pulse.

Claim 47 (Currently amended): A method of transmitting data with electronic pulses, the method comprising:
receiving bits of data from a memory unit;
transforming a plurality of the bits of data into a ~~single transmission pulse of electrical energy a~~
monocycle ultra wideband pulse, the single ~~transmission~~ pulse having a pulse position
selected from a set of ten or more predetermined pulse positions, one of which is
corresponding to the bits of data; and
transmitting the ~~single transmission~~-ultra wideband pulse over a transmission medium ~~without~~
~~using a carrier signal to transmit the single transmission pulse.~~

Claim 48 (Cancelled).

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of
universal character encoding and wherein the plurality of bits represent a digit associated with a
universal character.

Claim 50 (Currently amended): The method of claim 47 further comprising:
receiving the ~~single transmission~~-ultra wideband pulse from the transmission medium; and
transforming the ~~single transmission~~-ultra wideband pulse into a plurality of bits of data
corresponding to the position of the transmission pulse.

Claims 51-57 (Cancelled).

Claim 58 (Currently amended): A method of transmitting data, the method comprising:
representing a symbol comprising at least two bits of data by varying a pulse ~~characteristic~~
duration of a single time modulated ultrawideband radio-frequency pulse wherein the
pulse ~~characteristic~~ duration is selected to be of one of a set of at least ten pulse
~~characteristics~~ durations based on the value of the at least two bits of data;
transmitting the time modulated ultrawideband pulse over a guided medium from a transmitter to
a receiver.

Claims 59-61 (Cancelled).

Claim 62 (Previously presented): A method of transmitting data, comprising:
representing a symbol encoding a plurality of bits of data using a pulse characteristic of a single
time modulated ultra wideband radio-frequency pulse;
transmitting the single time modulated ultra wideband radio-frequency pulse over a guided
medium from a transmitter to a receiver;
wherein the step of representing comprises encoding the plurality of bits into a base 10
representation, such that the single time modulated ultra wideband pulse corresponds to a
digit between 0 and 9.

Claim 63 (Previously presented): The method of claim 62 wherein guided medium is an
electrically conductive guided medium.

Claim 64 (Previously presented): The method of claim 62 wherein the pulse characteristic is
a pulse duration.

Claim 65-66 (Cancelled).